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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/635,641

08/07/2003

Hironori Sahara

030943

8804

38834

7590

11/19/2004

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EXAMINER

HARRINGTON, ALICIA M

ART UNIT

PAPER NUMBER

2873

DATE MAILED: 11/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/635,641

Applicant(s)

SAHARA ET AL.

Examiner

Alicia M Harrington

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 7-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/03; 10/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of claims 1-6 in the reply filed on 10/13/04 is acknowledged.

Information Disclosure Statement

2. The Examiner has considered the information disclosure statements filed 8/7/03 and 10/13/04.

Specification

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

4. The abstract of the disclosure is objected to because it has more than 150 words.

Correction is required. See MPEP § 608.01(b).

5. The disclosure is objected to because of the following informalities: The Brief Description of Drawings sections fails to include descriptions for figures 1a and 1b, 2a and 2b, 4a and 4b, 5a and 5b, 6a and 6b, and 7a and 7b.

Appropriate correction is required.

Claim Objections

6. Claim 1 is objected to because of the following informalities: The Examiner believes in line 5, the word “the” is missing between the words “modeling” and “same”. Appropriate correction is required.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-3,5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rubin et al (US 4,733,246).

Regarding claim 1, Rubin discloses an ultra-lightweight electromagnetic wave concentrator comprising a thin film curved body (12/14; col. 2, lines 35-45) that has a reflective surface that assume the surface shape that is part of a paraboloid of revolution (see figure 3) or of a curved surface modeling same, wherein a reinforcing structure (#18 or #30) is formed at least in the peripheral zone of said reflective surface (30-see col. 2, lines 57-65) to increase the rigidity of the thin-film curved body. Rubin fails to specifically disclose the thin film is molded by the effect of stress relaxation. Although, product by process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. In re Thorpe, 777 F.2d 695,698,227 USPQ 964, 966 (Fed. Cir. 1985)-see MPEP 2113.

Regarding claim 2, Rubin discloses the an ultra-lightweight electromagnetic wave concentrator according to claim 1, wherein said reinforcing structure (#18 or #30) is molded by said effect of stress relaxation simultaneously with the molding of the thin film materials. Rubin disclose the

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wave concentrator is made at the same time the supporting structure (for example #18) is made using an adhesive to bring them together (see col. 2, lines 35-47).

Regarding claim 3, Rubin discloses an ultra-lightweight electromagnetic wave concentrator according to claim 1, wherein said reinforcing structure is molded in said reflective surface-element #18 is adhered/molded to the back of the surface of the reflector. The other piece (#30) of the support surface is adhered/molded by an adhesive to surface #18.

Regarding claim 5, Rubin discloses an ultra-lightweight electromagnetic wave concentrator according to claim 1, wherein said reinforcing structure is formed in the shape of ridge or groove (#27; see figures 2 and 3).

Regarding claim 6, Rubin discloses the an ultra-lightweight electromagnetic wave concentrator according to claim 1, wherein a reinforcing agent is coated or arranged over the entire or part of said reinforcing structure, or over the entire or part of the back side of said reflective surface (the adhesive used to hold the reinforcing structure together and used to hold the reinforcing structure to the reflector).

9. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rubin et al (US 4,733,246) in view of Withoos (US 4,171,563)

Regarding claim 4, Rubin fails to specifically disclose the an ultra-lightweight electromagnetic wave concentrator according to claim 3, wherein said reinforcing structure is formed in radially extending linear configuration or ring like concentric configuration.

In the same field of endeavor, Withoos discloses a parabolic reflector/concentration where the reinforcing structure (9 or 65) and reflective structure are formed in a radially extending linear configuration. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a linear extending support structure reflective, as taught by Withoos, since it is known in the art and it still provides a light weight parabolic concentrator with ease of assembly.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Hayakawa et al (US 6,811,271) discloses electromagnetic wave focusing device.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia M Harrington whose telephone number is 571 272 2330.

The examiner can normally be reached on Monday - Thursday 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on 571 272 2328. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



AMH

Alicia M Harrington
Examiner
Art Unit 2873